US009976827B2

(12) **United States Patent**
Alicea, Jr.

(10) **Patent No.: US 9,976,827 B2**
(45) **Date of Patent: May 22, 2018**

(54) **TRIGGER BLOCKING SYSTEM FOR A FIREARM**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days. days.

(21) Appl. No.: **15/597,766**

(22) Filed: **May 17, 2017**

(65) **Prior Publication Data**

US 2017/0363380 A1 Dec. 21, 2017

Related U.S. Application Data

(63) Continuation of application No. 14/860,871, filed on Sep. 22, 2015, now Pat. No. 9,658,015.

(60) Provisional application No. 62/053,453, filed on Sep. 22, 2014.

(51) **Int. Cl.**
F41A 17/56 (2006.01)
F41A 17/46 (2006.01)

(52) **U.S. Cl.**
CPC ***F41A 17/46*** (2013.01)

(58) **Field of Classification Search**
CPC F41A 17/46; F41A 17/06; F41A 17/02; F41A 17/04
USPC 42/70.06, 70.11, 84
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,978,626 A	4/1961	Ivy		
2,978,826 A *	4/1961	Ivy	F41A 17/22	42/70.06
4,136,475 A *	1/1979	Centille	F41A 17/02	42/70.11
4,384,420 A *	5/1983	Von Muller	F41A 17/44	42/70.06
5,022,175 A *	6/1991	Oncke	F41A 17/04	42/66
5,433,028 A *	7/1995	Novak	F41A 17/06	42/70.06
5,560,134 A *	10/1996	Van Niekerk	F41A 17/46	42/70.06
6,032,396 A	3/2000	Shapiro		
6,301,816 B1	10/2001	Saltz		
6,405,468 B1 *	6/2002	Gilgenbach	F41A 17/46	42/70.01
6,510,639 B2	1/2003	McMoore		
6,550,175 B2	4/2003	Parker		
6,823,621 B2 *	11/2004	Gotfried	F41A 17/066	42/70.01
7,051,468 B2	5/2006	Glock		

(Continued)

FOREIGN PATENT DOCUMENTS

EP	0592103	4/1994

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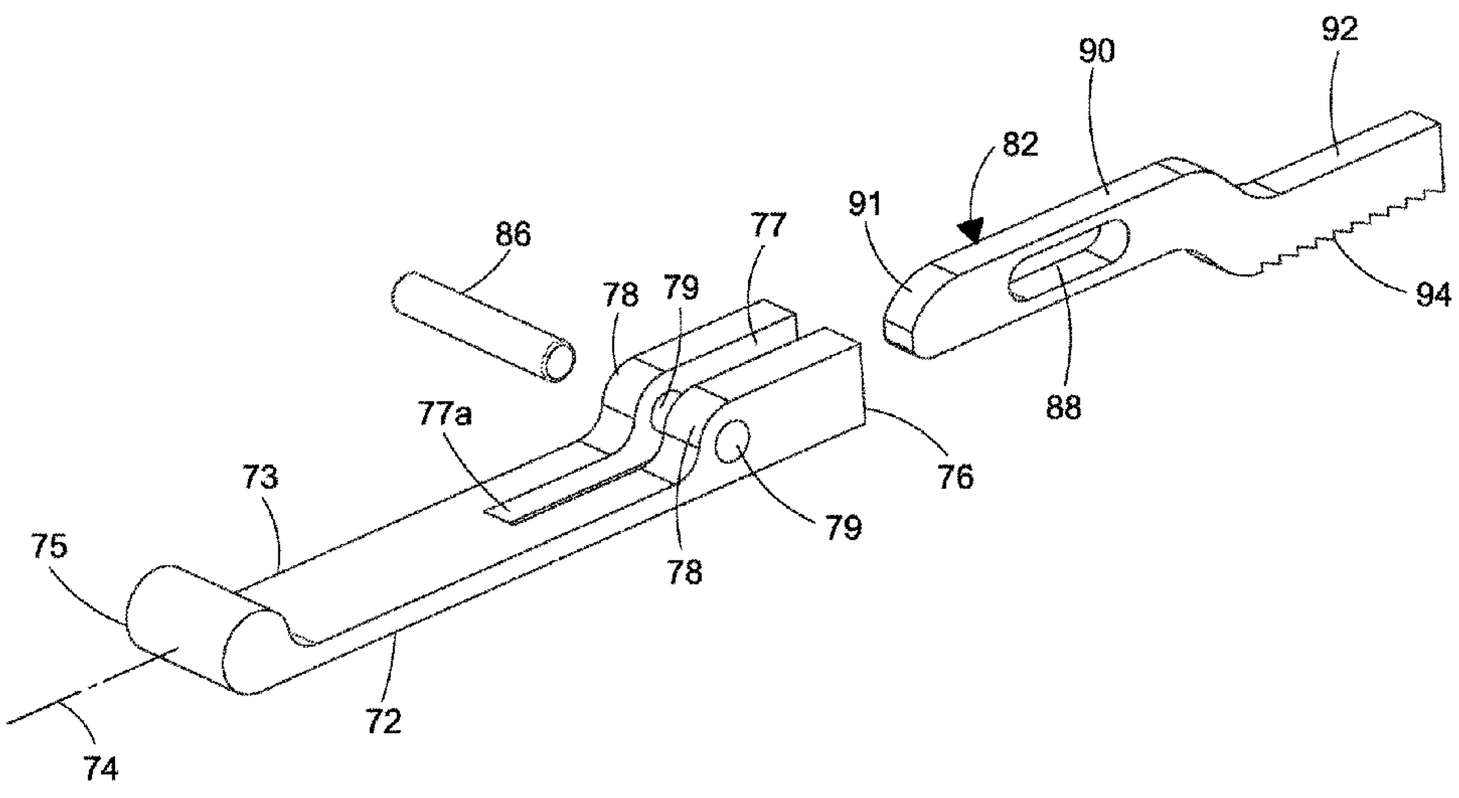
(57) **ABSTRACT**

There is disclosed herein systems, methods and apparatus relating to a trigger block for mechanically blocking the trigger of a firearm and preventing the trigger from being pulled to actuate the firing mechanism when the trigger block is in a blocking position. The trigger block is secured in the blocking position and can only be moved to an unblocked position by an authorized user via operation of a security device, such as a key, sensor, and/or keypad.

19 Claims, 15 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

7,360,332	B2 *	4/2008	Rozovsky	F41A 17/06 42/106
2002/0029507	A1	3/2002	Salts	
2014/0305017	A1 *	10/2014	Travis	F41A 17/063 42/70.06

* cited by examiner

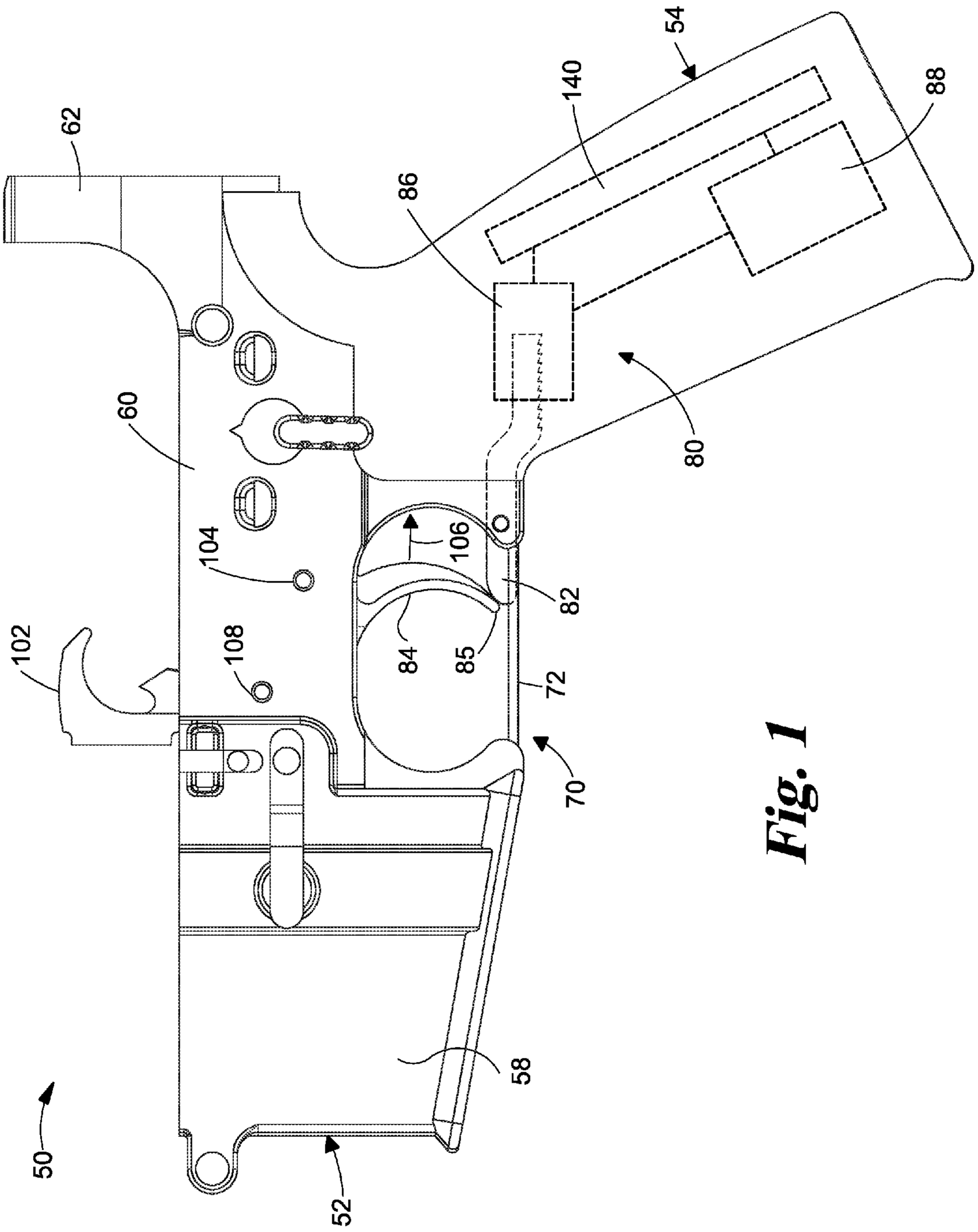


Fig. 1

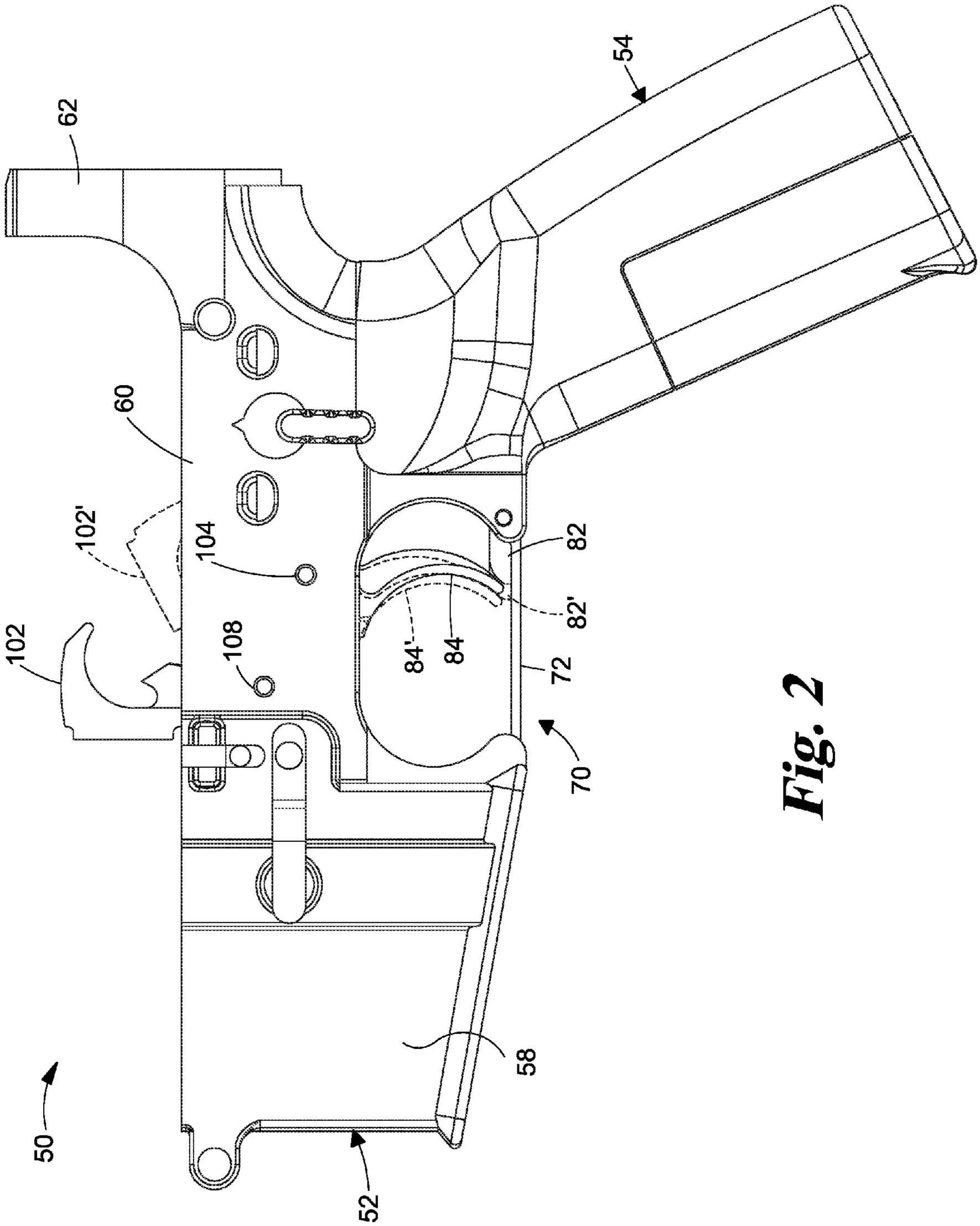


Fig. 2

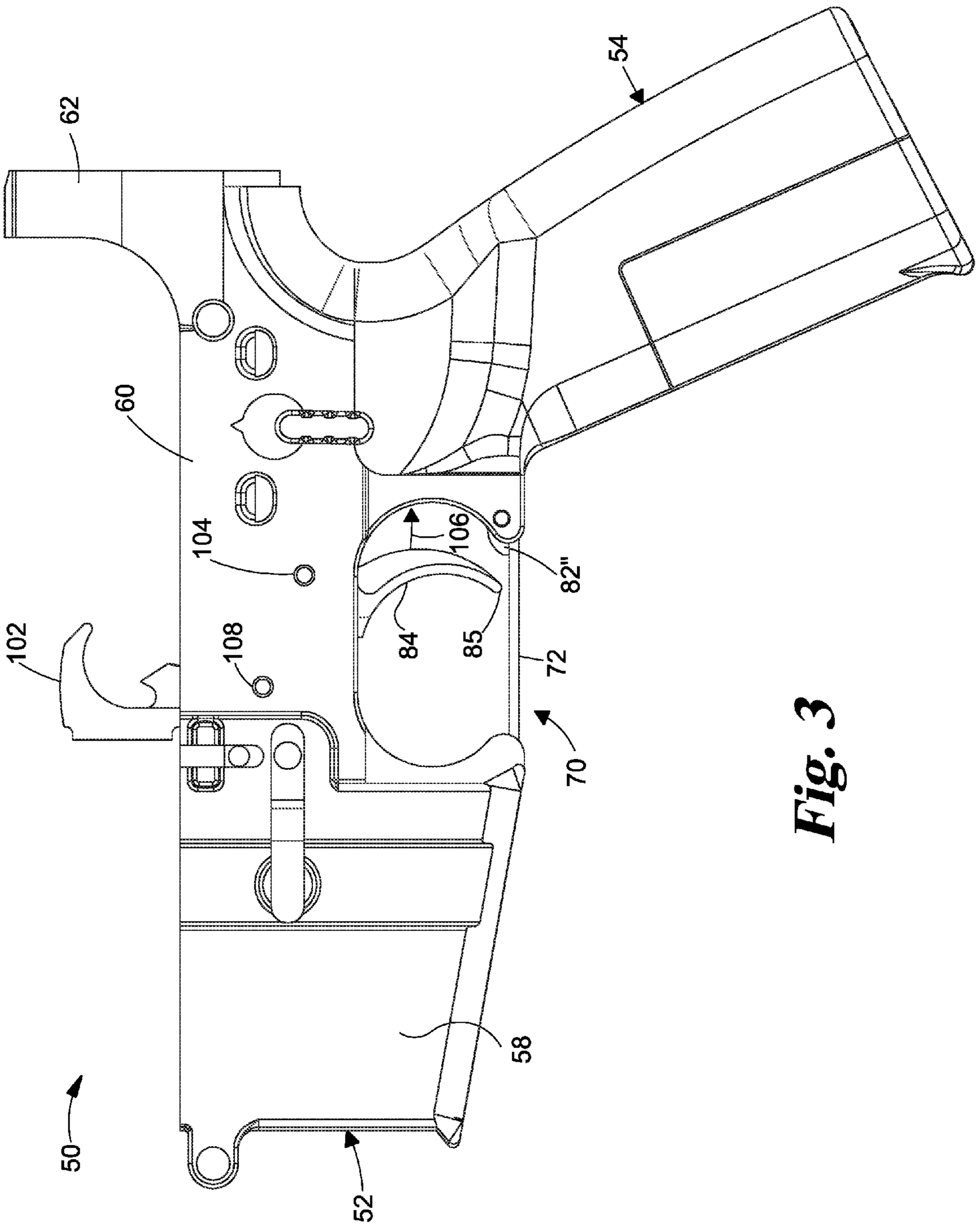


Fig. 3

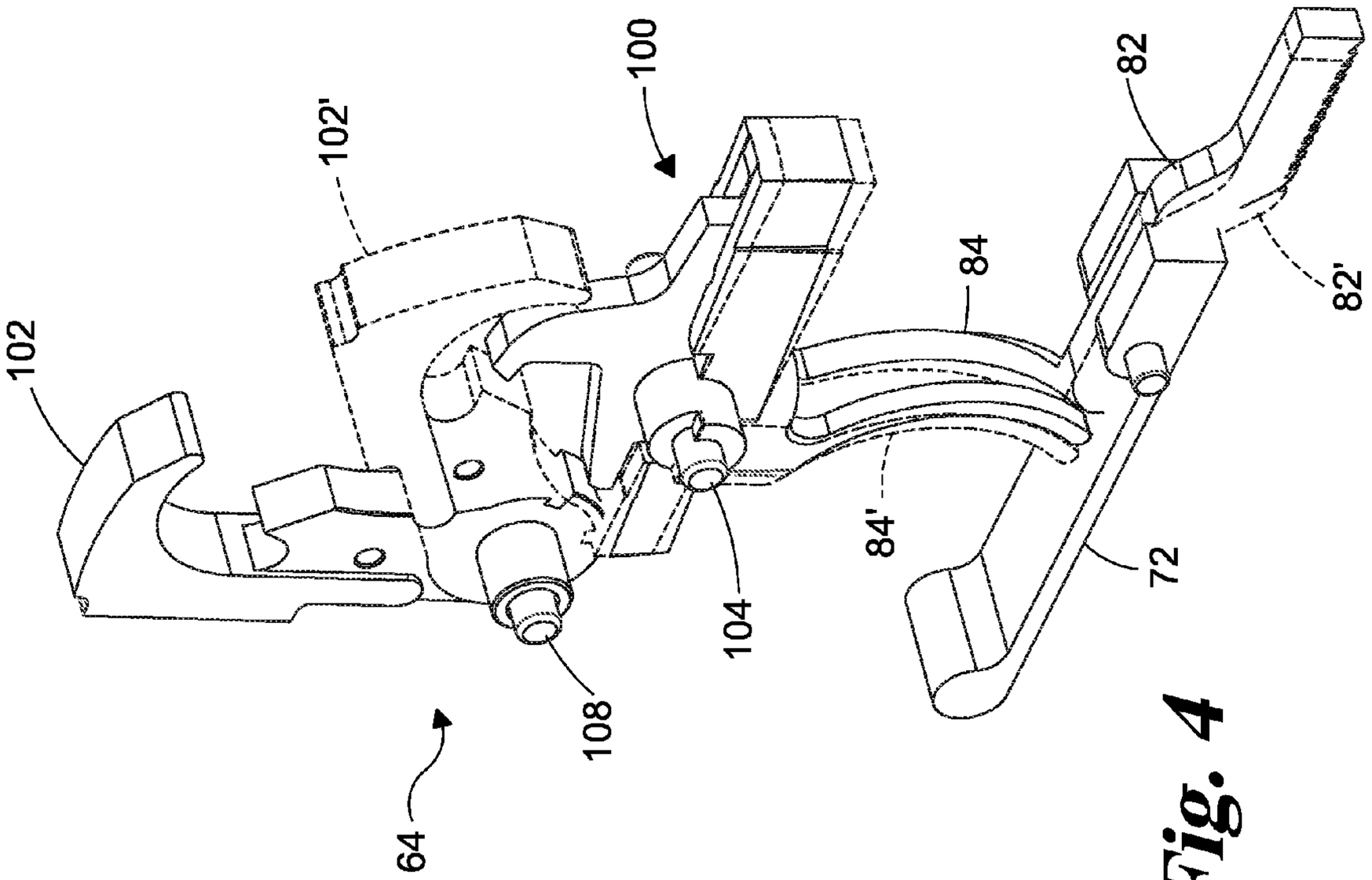


Fig. 4

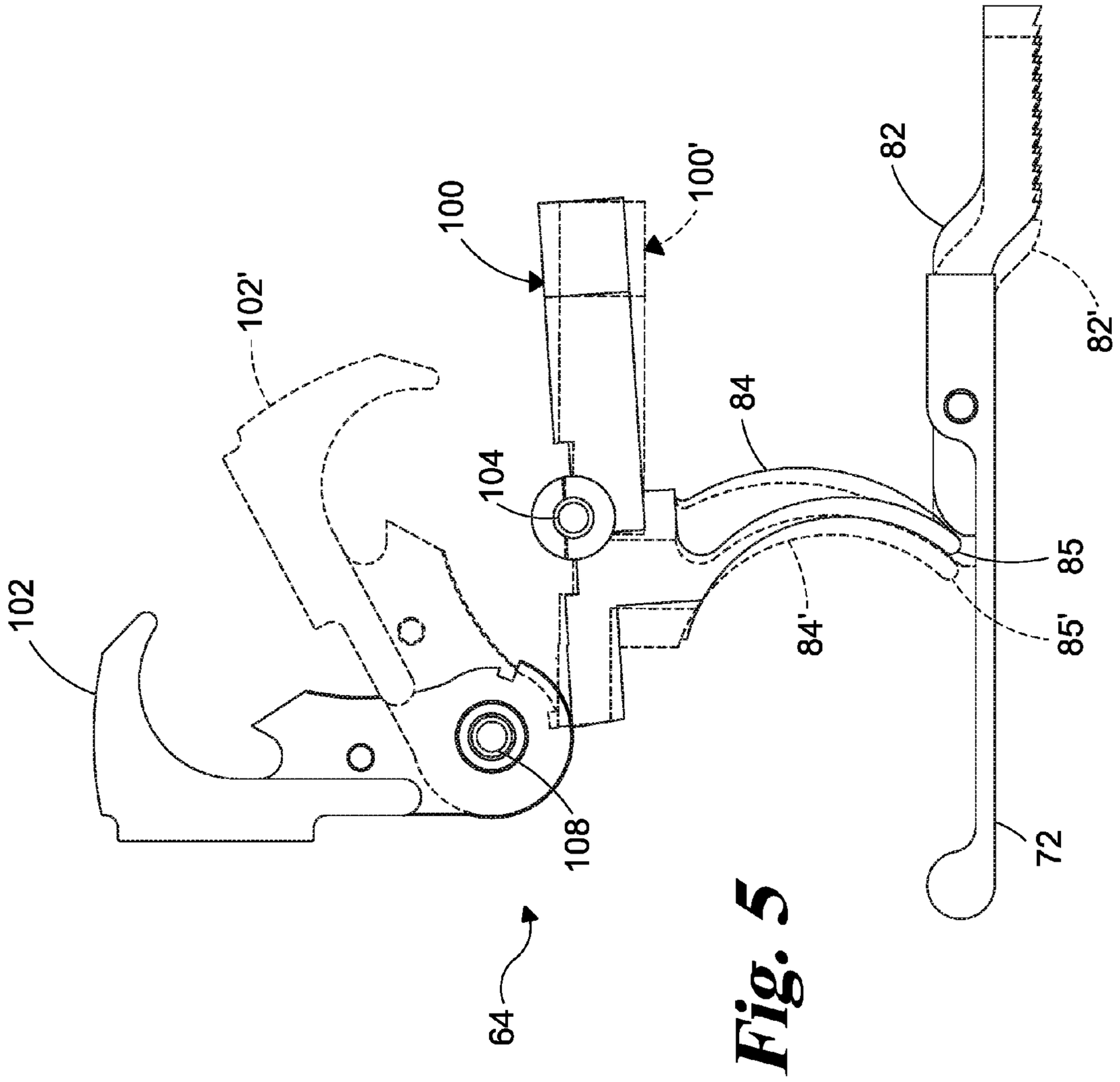


Fig. 5

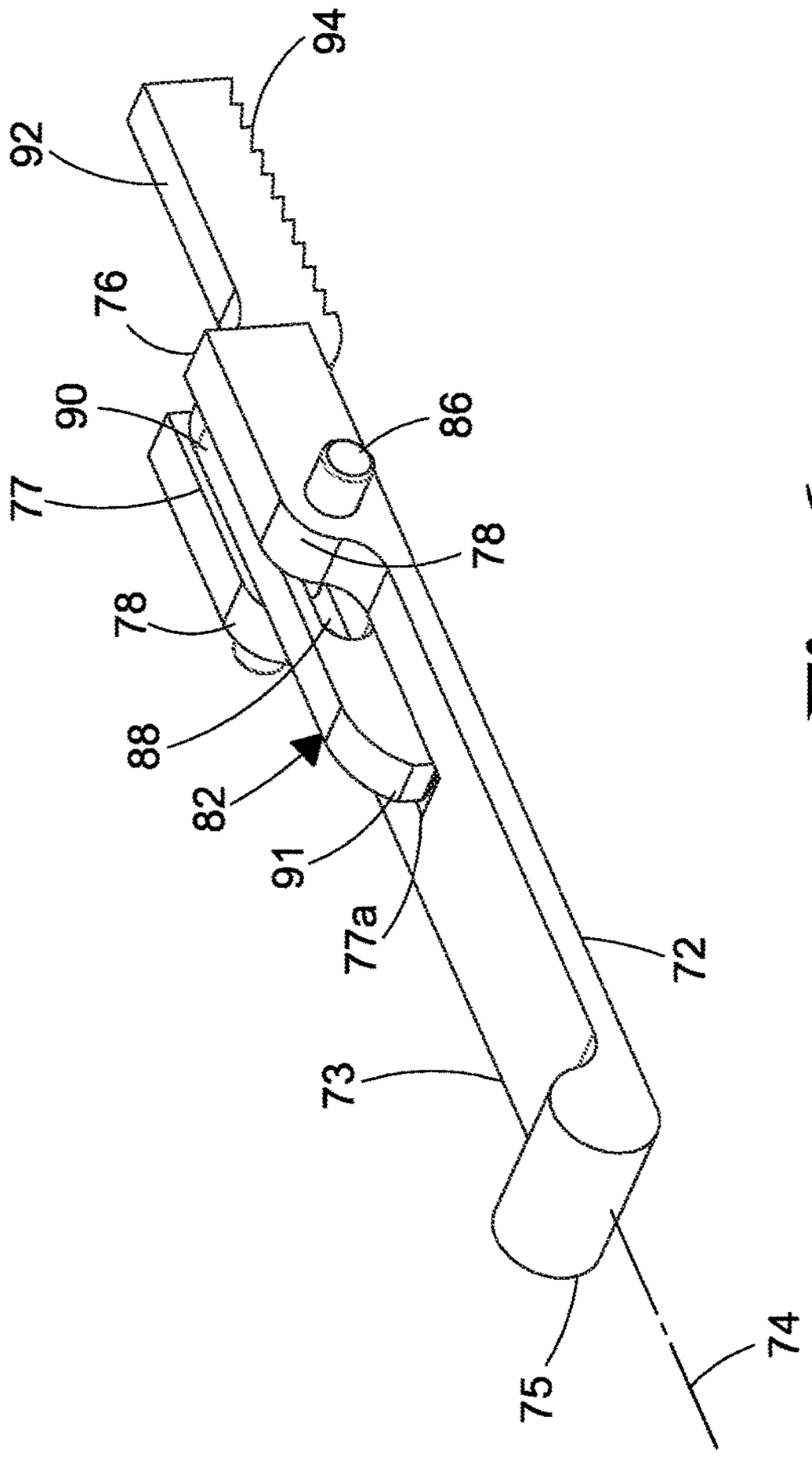


Fig. 6

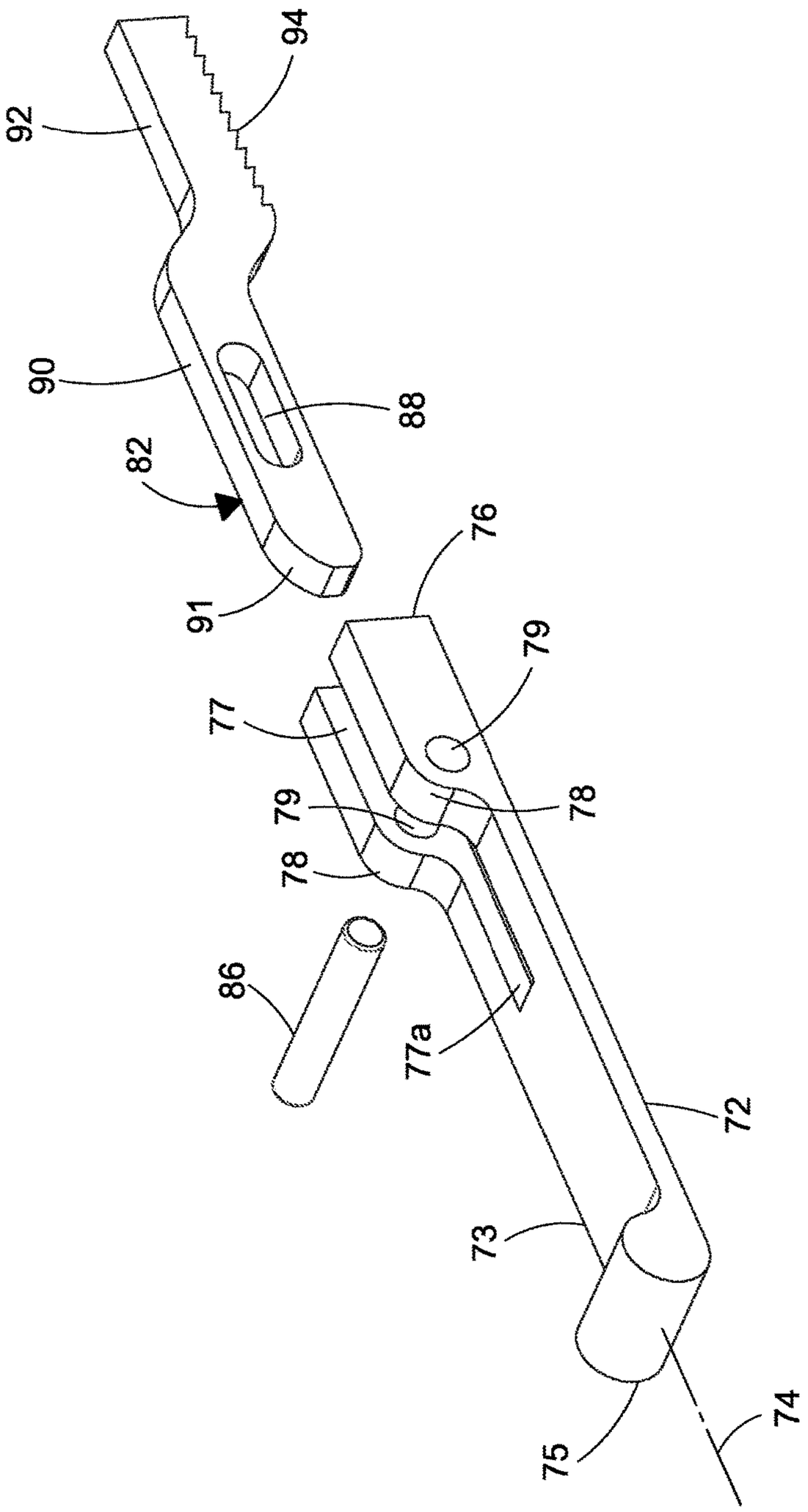


Fig. 7

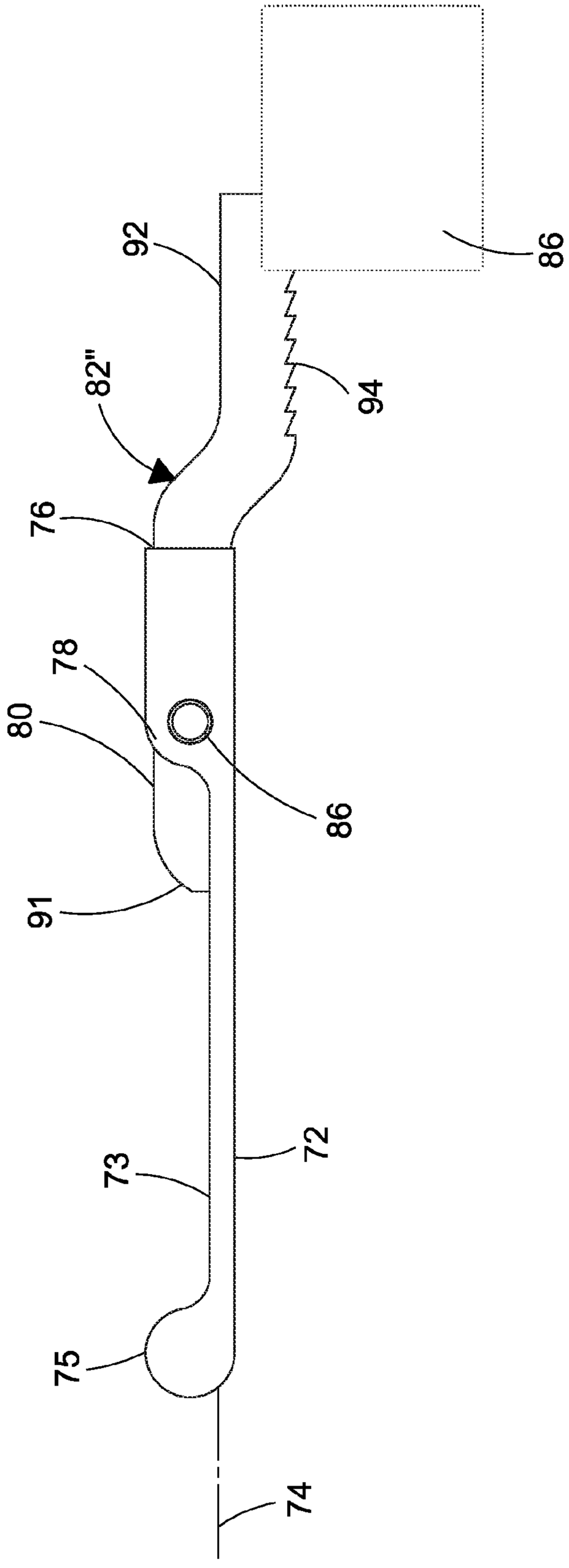


Fig. 8

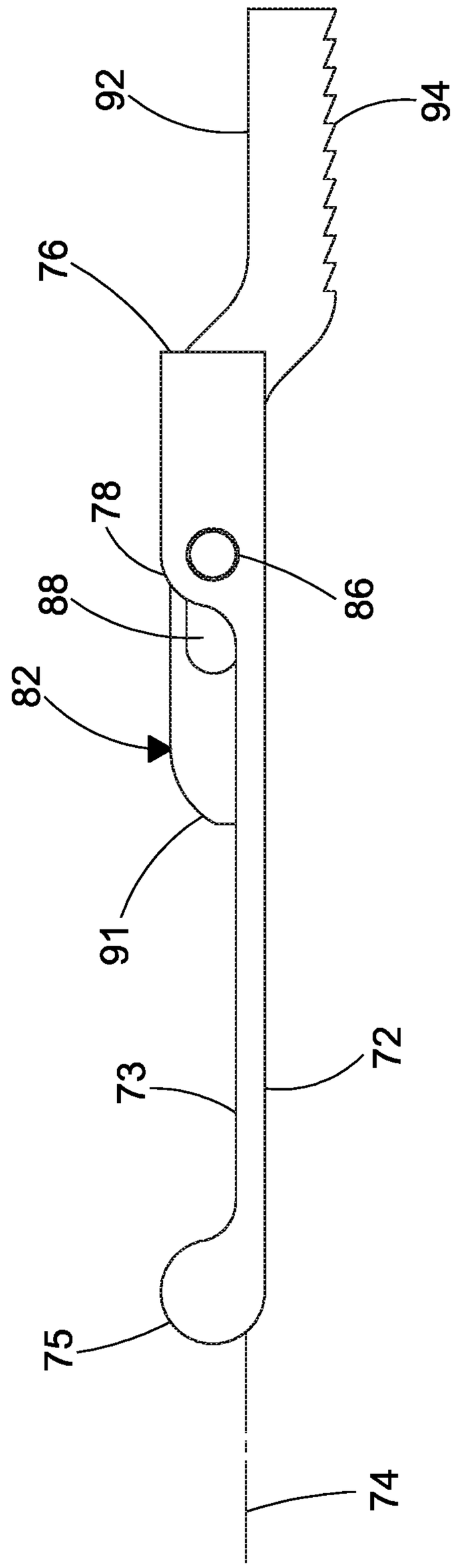


Fig. 9

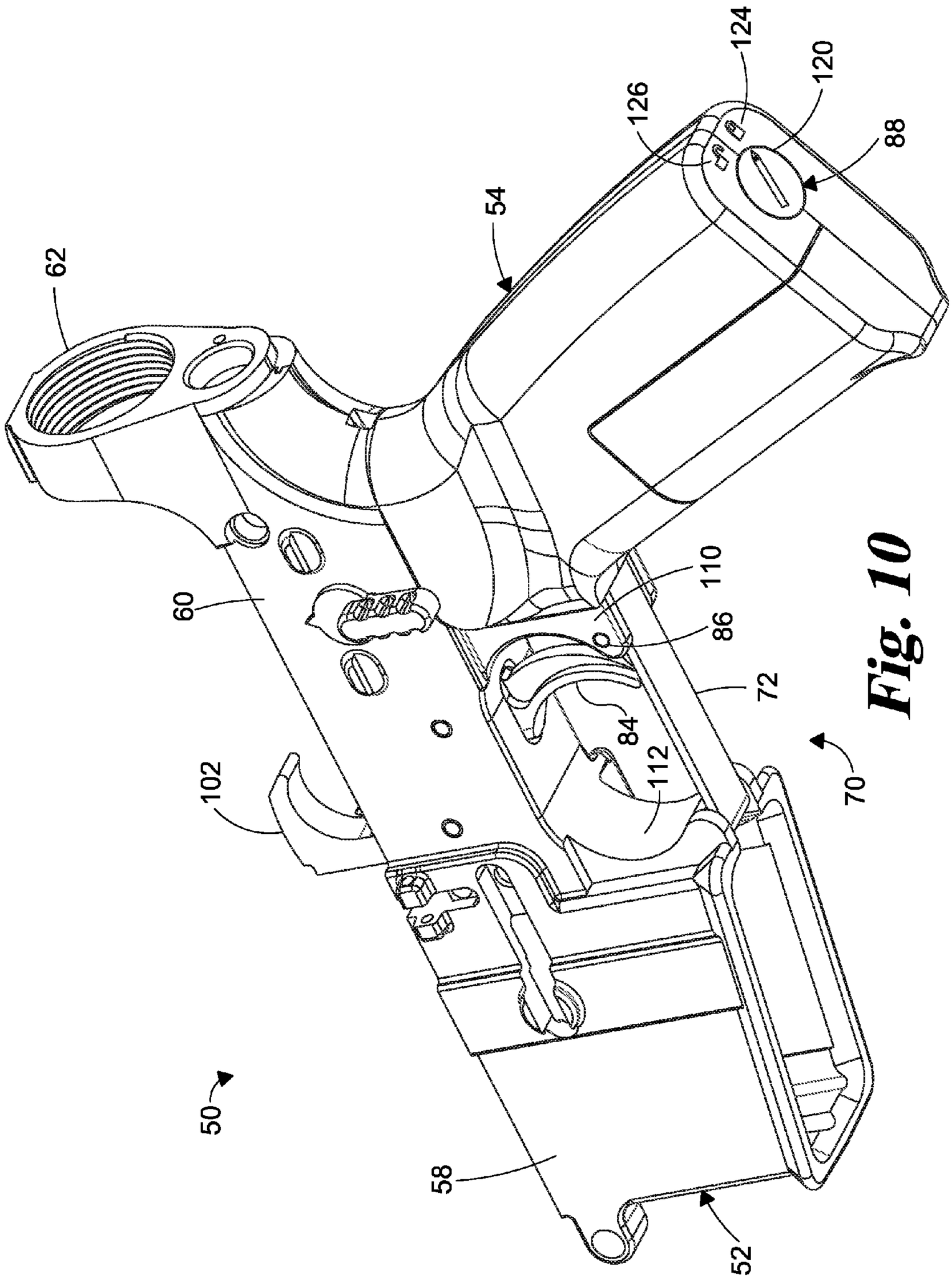


Fig. 10

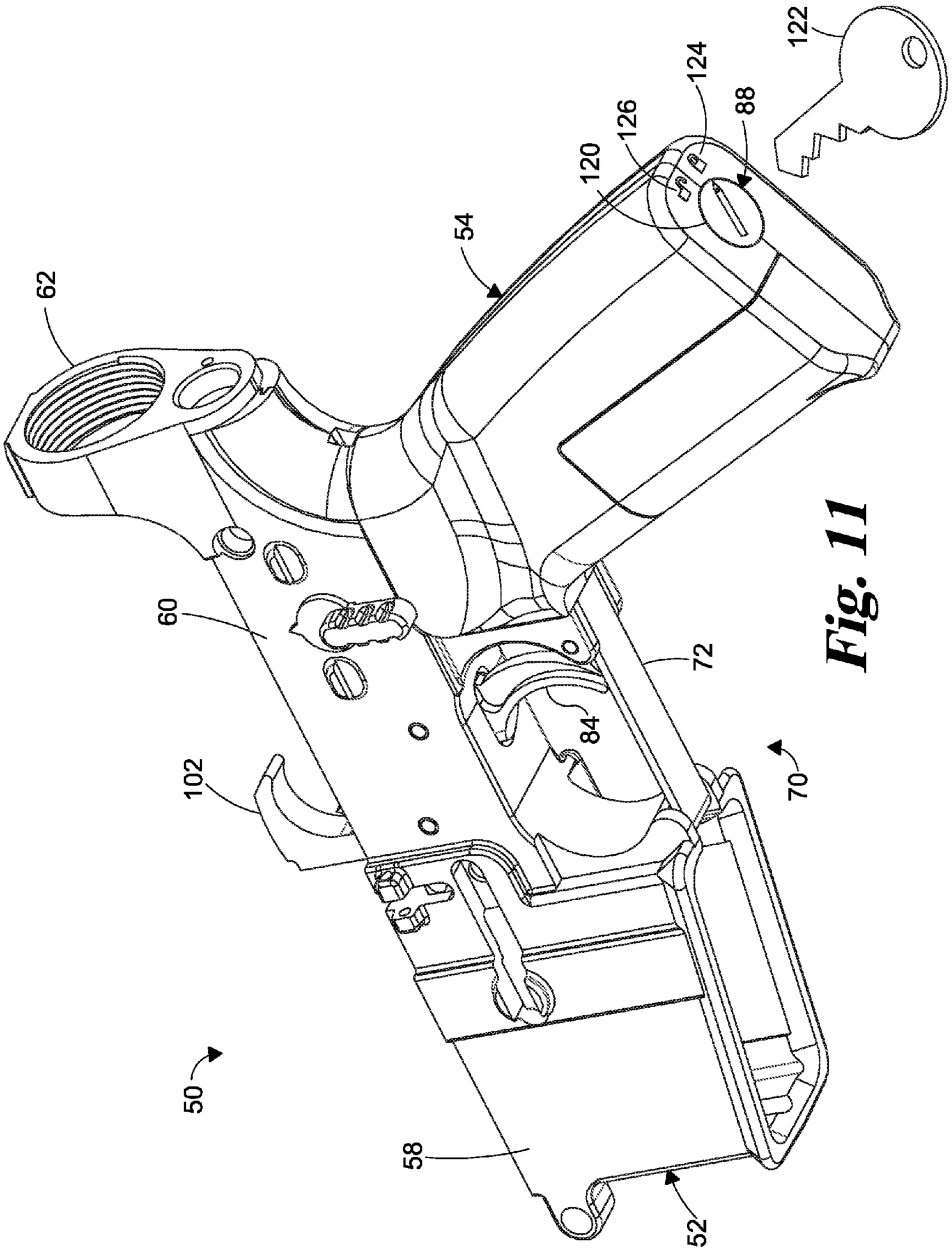


Fig. 11

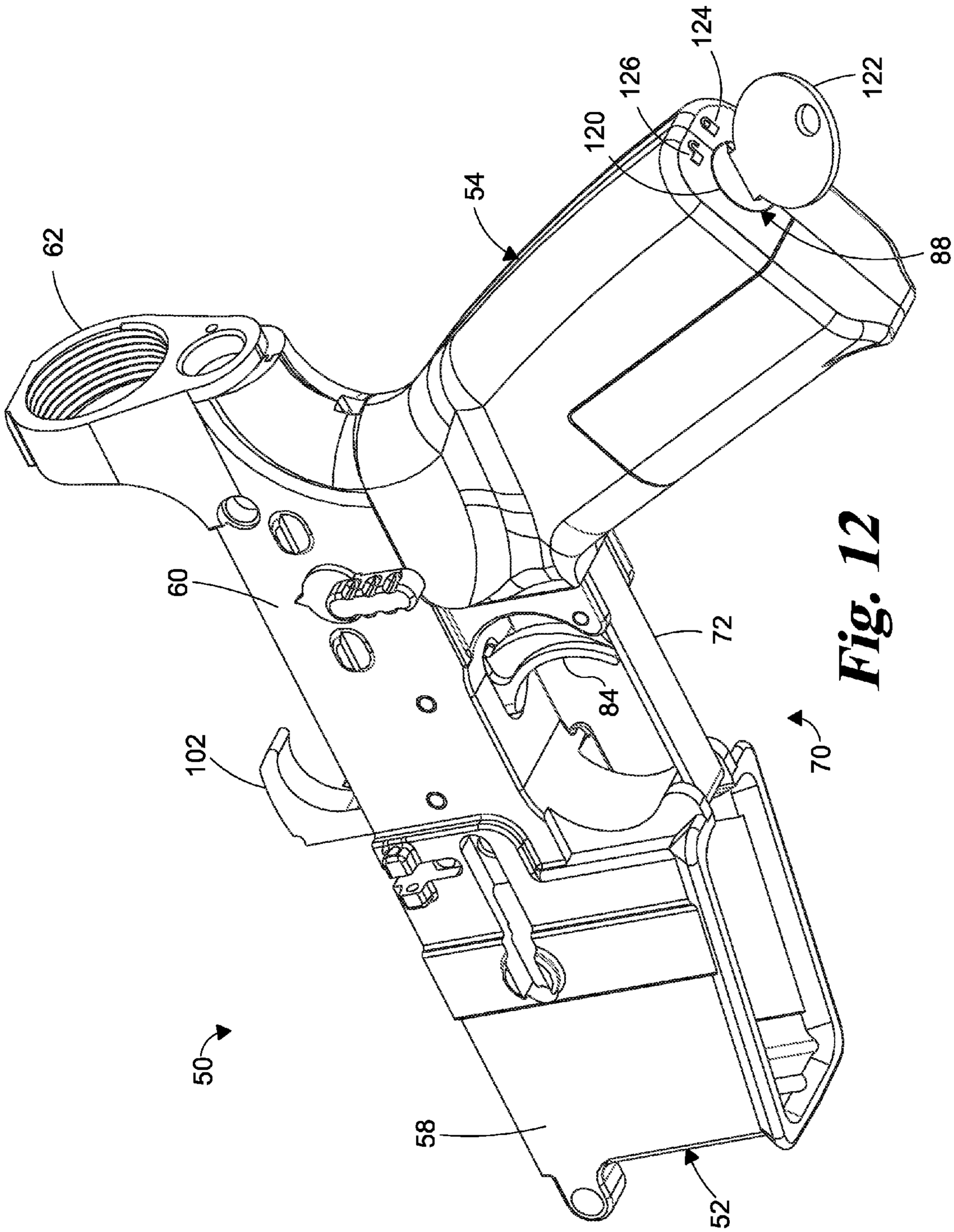


Fig. 12

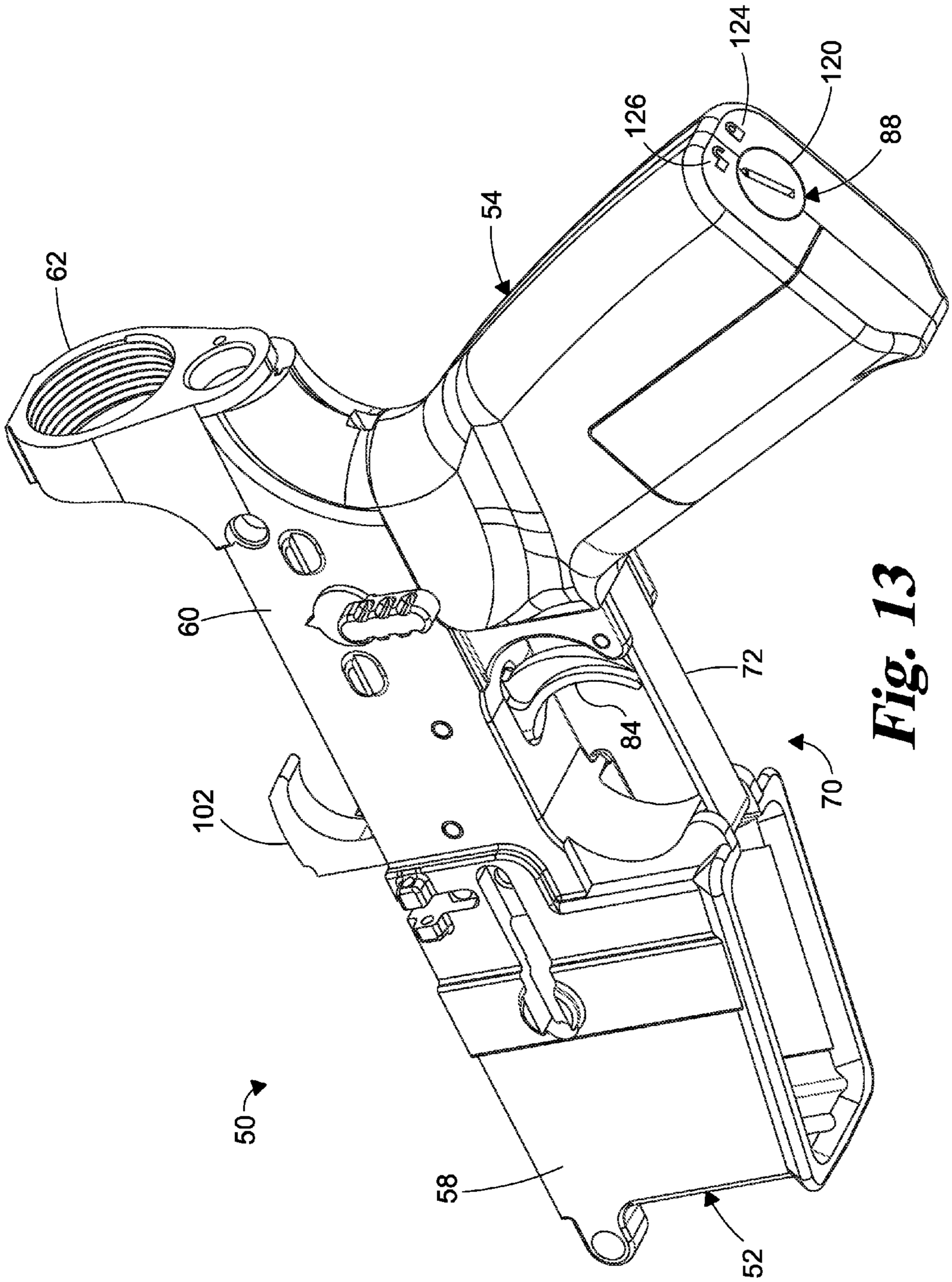


Fig. 13

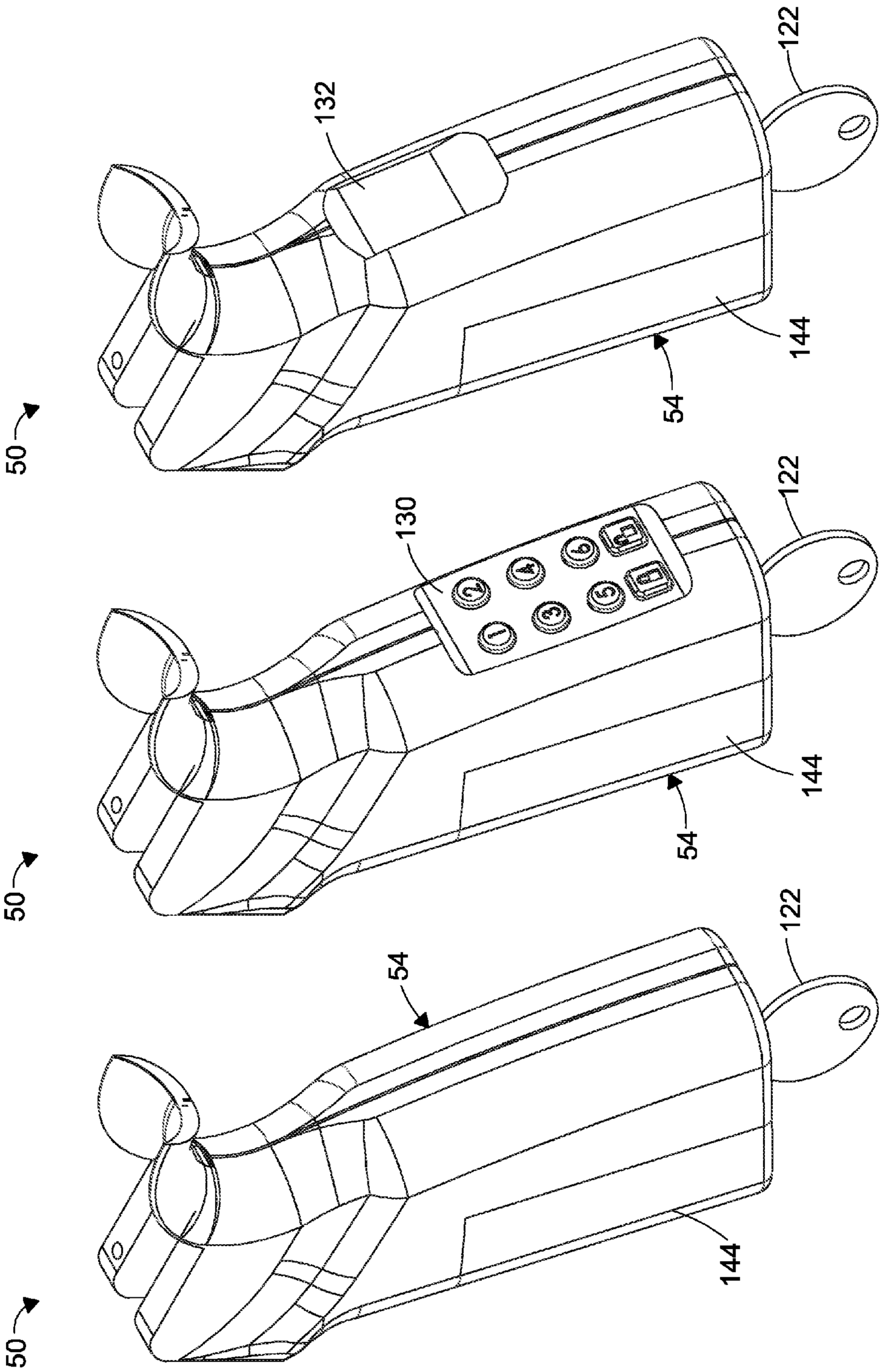


Fig. 16

Fig. 15

Fig. 14

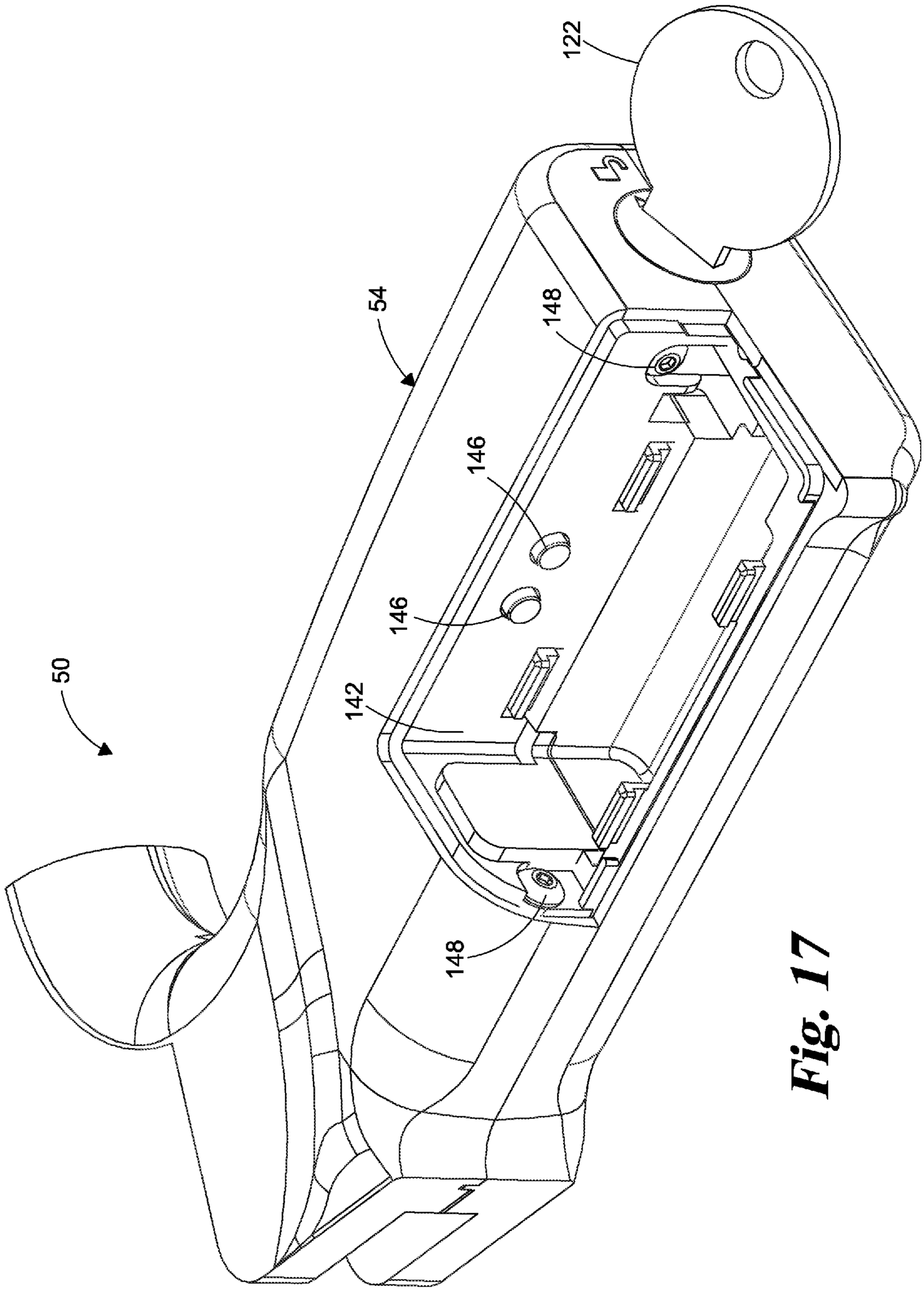


Fig. 17

TRIGGER BLOCKING SYSTEM FOR A FIREARM

The present application is a continuation of U.S. patent application Ser. No. 14/860,871 filed Sep. 22, 2015, which claims the benefit of the filing date of U.S. Provisional Application Ser. No. 62/053,453 filed on Sep. 22, 2014, which are incorporated herein by reference in its entirety.

BACKGROUND

Firearms typically rely on mechanical systems to control the firing of projectiles from the firearm. For example, a trigger is typically used to actuate the firing mechanism to fire a projectile. In order to limit the use of firearms to authorized persons, trigger locks have been developed that mount on the trigger guard and prevent access to the trigger unless the trigger lock is removed. While such devices are steps in the right direction, they can be bulky and difficult to install and remove, and are not part of the firearm. Therefore, the owner may forget or be reluctant to install the trigger lock, and such devices can be misplaced or lost. Thus, further improvements in this technology area are needed.

SUMMARY

There is disclosed herein systems, methods and apparatus relating to preventing unauthorized operation of a firearm with a trigger that is pulled to actuate a firing mechanism to fire projectiles from the firearm. In one embodiment, the systems, methods and apparatus include a trigger block that is integrated with the firearm and configured to mechanically block the trigger and prevent the trigger from being pulled to actuate the firing mechanism when the trigger block is in a blocking position. In another embodiment, the systems, methods and apparatus include a trigger block that when in the blocking position remains engaged to the trigger whether the hammer is cocked or uncocked. In either embodiment, the trigger block is secured in the blocking position and can only be moved to an unblocked position by an authorized user via operation of a security device, such as a key, sensor, and/or keypad. In certain embodiments, the trigger block is supported along a removable portion of a trigger guard and is moveable in a reciprocating manner along a length of the trigger guard between the blocking position and the unblocked position.

This summary is provided to introduce a selection of concepts that are further described below in the illustrative embodiments. This summary is not intended to identify key or essential features of the claimed subject matter, nor is it intended to be used as an aid in limiting the scope of the claimed subject matter. Further embodiments, forms, objects, features, advantages, aspects, and benefits shall become apparent from the following description and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is an elevation view of a lower receiver/grip assembly of a firearm with a trigger blocking system.

FIG. **2** is another elevation view of the lower receiver/grip assembly of FIG. **1** showing a trigger block of the trigger blocking system engaged to the trigger when the hammer is cocked and uncocked.

FIG. **3** is another elevation view of the lower receiver/grip assembly of FIG. **1** showing the trigger block disengaged from the trigger.

FIG. **4** is a perspective view of the trigger block and a firing mechanism of the firearm showing the trigger block engaged to the trigger when the hammer is cocked and uncocked.

FIG. **5** is an elevation view of the trigger block and firing mechanism of FIG. **4** showing the trigger block engaged to the trigger when the hammer is cocked and uncocked.

FIG. **6** is a perspective view of the trigger block and a removable portion of the trigger guard of the firearm with the trigger block in a blocking position.

FIG. **7** is an exploded perspective view of the trigger block and the removable portion of the trigger guard of the firearm.

FIG. **8** is an elevation view of the trigger block and the removable portion of the trigger guard with an actuating device for reciprocating the trigger block with the trigger block in an unblocked position.

FIG. **9** is an elevation view of the trigger block and the removable portion of the trigger guard with the trigger block in a blocking position.

FIG. **10** is a perspective view of the lower receiver/grip assembly of FIG. **1** showing one embodiment of a security device in a locked position for locking the trigger block in the blocking position.

FIG. **11** is a perspective view of the lower receiver/grip assembly of FIG. **10** showing a key for use with the locking mechanism.

FIG. **12** is a perspective view of the lower receiver/grip assembly of FIG. **10** showing a key inserted into the security device.

FIG. **13** is a perspective view of the lower receiver/grip assembly of FIG. **10** showing the security device in an unlocked position.

FIG. **14** is a perspective view of the grip assembly showing an embodiment of the security device that utilizes a key for unlocking the trigger block.

FIG. **15** is a perspective view of the grip assembly showing an embodiment of the security device that utilizes a key and keypad for unlocking the trigger block.

FIG. **16** is a perspective view of the grip assembly showing an embodiment of the security device that utilizes a key and a sensor for unlocking the trigger block.

FIG. **17** is a perspective view of the grip assembly showing the security device in an unlocked position and an access cover removed from a compartment of the grip.

DESCRIPTION THE ILLUSTRATED EMBODIMENTS

For the purposes of promoting an understanding of the principles of the invention, reference will now be made to the embodiments illustrated in the drawings and specific language will be used to describe the same. It will nevertheless be understood that no limitation of the scope of the invention is thereby intended, any alterations and further modifications in the illustrated embodiments, and any further applications of the principles of the invention as illustrated therein as would normally occur to one skilled in the art to which the invention relates are contemplated herein.

Referring to FIG. **1**, there is shown a firearm **50** that includes a lower receiver **52** and a grip assembly **54** secured to lower receiver **52**. It should be understood that not all details of firearm **50** are shown, such as its upper receiver, bolt assembly and barrel, it being understood that the present disclosure has application to any suitable upper receiver and barrel for a firearm. In one embodiment, firearm **50** is an AR-15 or M16 type firearm, although other firearm types are

also contemplated, such as an AK-47 or suitable assault type rifle with a trigger guard having or modifiable to have a trigger guard **70** with a removable guard portion **72** along the lower or bottom side of trigger **84**. As discussed further below, firearm **50** includes a trigger blocking system **80** with a trigger blocking device **82** that is structured to selectively engage with trigger **84** in a blocking position to block movement of trigger **84** and to disengage from trigger **84** in an unblocked position to allow normal operation of firearm **50**.

Lower receiver **52** of firearm **50** includes a magazine holder **58** for receiving a magazine (not shown) and a housing **60** with a buffer tube or stock assembly attachment member **62** at a rearward end thereof. Housing **60** defines a compartment (not shown) for housing a firing mechanism **64** that includes a sear assembly **100** (FIG. **4**) and a hammer **102** that is movable between an uncocked position as indicated by hammer **102** and a cocked position as indicated by hammer **102'** (FIGS. **2** and **4**) about a hammer pin **108**, which also couples hammer **102** to lower receiver **52**. Trigger **84** is coupled to sear assembly **100** with a pin arrangement **104**, which also couples sear assembly **100** to lower receiver **52**. Hammer **102** is movable between the cocked position as shown by hammer **102'** to a released or uncocked position as shown by hammer **102** by pulling of trigger **84** in a rearward direction **106**.

Trigger blocking system **80** includes trigger blocking device **82** associated with trigger guard **70**, an actuating device **86** in grip **54** connected to trigger blocking device **82**, a security device **88** in or accessible through grip **54** that is connected to actuating device **86**, and, in certain embodiments, an electronic control device **140** in grip **54** that is connected to actuating device **86** and security device **88**. As shown in FIGS. **1** and **2**, trigger blocking device **82** extends into trigger guard **70** and contacts a lower or bottom end **85** of trigger **84** to prevent movement of trigger **84** in the rearward direction **106**, thus effectively locking and disabling firearm **50**. As further shown in FIGS. **2**, **4** and **5**, when hammer **102** is in the cocked position as indicated by hammer **102'**, trigger **84** pivots forwardly as indicated by forwardly displaced trigger **84'** and sear assembly **100** also pivots as indicated by sear assembly **100'**. Trigger blocking device **82** is biased forwardly to maintain contact with forwardly displaced trigger **84'** with cocked hammer **102'**, as indicated by forwardly displaced trigger blocking device **82'** in engagement with trigger **84'**. As shown in FIG. **3**, when trigger blocking device **82** is disengaged and moved to an unblocked position **82"**, trigger blocking device is spaced from trigger **84** and trigger **84** may be pulled in a rearward direction **106** to fire firearm **50**.

One embodiment trigger blocking device **82** and removable guard portion **72** are shown in FIGS. **6-9**. Removable guard portion **72** includes an elongated body **73** extending along a longitudinal axis **74** between a first end **75** and an opposite second end **76**. Body **73** includes a notch **77** extending forwardly along longitudinal axis **74** from second end **76** that receives trigger blocking device **82** in a sliding, reciprocating arrangement. Body **73** also includes ears **78** that define holes **79** to receive a pin **86** therein with pin **86** extending through a slot **88** of trigger blocking device **82**. Notch **77** extends along a portion of the length of body **73** and forms a groove **77***a* in body **73** that, along with pin **86**, slidably captures trigger blocking device **82** on guard portion **72**. Groove **77***a* does not extend completely through body **73**, although embodiments in which groove **77***a* extends through body **73** are also envisioned.

Trigger blocking device **82** includes a blocking portion **90** and an extension portion **92** extending rearwardly from blocking portion **90**. Blocking portion **90** includes a rounded leading end nose **91** that contacts trigger **84** when in the blocking position. Extension portion **92** may be offset longitudinally from blocking portion **90**, although co-longitudinal, transverse, and other arrangements are also contemplated. Extension portion **92** may include teeth **94** or other suitable connecting arrangement to engage an actuating device **86** to allow reciprocating movement of blocking device **82** and the maintenance of blocking device **82** in the blocking position or the unblocked position. In one embodiment, teeth **94** are ratcheted to maintain trigger blocking device **82** in a forwardly displaced position in positive engagement with trigger **84** until trigger blocking device **82** is released, and trigger blocking device **82** is reciprocated in notch **77** along groove **77***a* of guard portion **72**. In one embodiment, an actuating device **86** that is in the form of a gear wheel or pinion is provided to advance trigger blocking device **82** to the blocking position and/or to retract trigger blocking device **82** to the unblocked position. In certain embodiments, a spring (not shown) or other biasing device can be provided to normally bias trigger blocking device **82** into engagement with trigger **84**, **84'** when trigger blocking device is in the blocking position. In this embodiment, teeth **94** engage the actuating device **86** to maintain the blocking engagement of blocking device **82** with trigger **84** even if trigger **84** pivots forwardly as indicated by trigger **84'** in response to hammer **102** being cocked as indicated by hammer **102'**. In another embodiment, actuating device **86** includes a reciprocating rod, drive member, worm gear, shaft, piston, other actuator suitable to reciprocate trigger blocking device **82** between the blocking position (FIGS. **6** and **9**) and unblocked position (FIG. **8**) relative to trigger **84** and guard portion **72**.

Referring further to FIG. **10**, guard portion **72** is shown mounted to lower receiver **52**. In particular, pin **86** is mounted to a rearward guard portion **110** at the rearward side of trigger **84**, and first end **75** is mounted to forward guard portion **112** at the forward side of trigger **84**. Accordingly, a lower receiver **52** with a standard trigger guard may be readily modified to include the firearm trigger blocking system **80** disclosed herein by substituting the inventive guard portion **72** for the existing guard portion and adding trigger blocking device **82**.

FIG. **10** further shows one embodiment of a security device **88** in the form of a lock cylinder **120** that is movable between a secure or locked position (FIGS. **10-12**) and an unsecure or unlocked position (FIG. **13**) by insertion of a key into lock cylinder **120** and turning lock cylinder **120** with key **122** to the unlocked position, as shown in FIG. **13**. In one embodiment, grip **54** includes indicators **124**, **126** to indicate a locked position and the unlocked position, respectively. Indicators **124**, **126** can include graphical representations, LED's, lights, audible devices, a display, or other suitable indicator to output locked and unlocked information to the user.

Referring to FIG. **14**, firearm **50** is shown with a grip assembly **54** including a lock cylinder type security device **88** with a lock cylinder to receive key **122**. In the FIG. **14** embodiment, the user simply needs key **122** to manipulate actuating device **86** to move blocking device **82** between the blocking position and the unblocked position. In addition to a lock cylinder operable by a key, security device **88** can include a keypad **130** such as shown in FIG. **15**, or a sensor **132** such as shown in FIG. **16**. Keypad **130** can be programmed to receive a code or other secure input in order to

unlock security device **88** and allow key **122** to be used to operate actuating device **86** to move blocking device **82** between the blocking position and unblocked position. Similarly, sensor **132** can be programmed to receive a finger print, thumb print, eye scan, voice command, or other secure input in order to unlock security device **88** and allow key **122** to be used to operate actuating device **86** to move blocking device **82** between the blocking position and unblocked position. Embodiments are also contemplated in which keypad **130** or sensor **132** are employed as security device **88** without a lock cylinder **120** or key **122**.

Referring back to FIG. **1**, security device **88** and, if provided, keypad **130** or sensor **132**, can be connected to electronic control device **140**. Electronic control device **140** can be in the form of a printed circuit board, programmable controller, microprocessor-based control circuit, or other suitable device that prevents actuating device **86** from manipulating trigger blocking device **82** unless the requisite key is inserted and/or input is provided to electronic control device **140** by a keypad or sensor. When the required secure input is provided, actuating device **86** can be energized or enabled, and then actuating device **86** can be operated by a switch that is actuated when key **122** is inserted and moved to the locked or unlocked position to move trigger blocking device to the associated blocking position or unblocked position. In still another embodiment, actuating device **86** is entirely mechanical and is operated to displace trigger blocking device **82** by rotation of lock cylinder **120** with key **122**.

Referring to FIG. **17**, an embodiment of grip **54** is shown that includes a compartment **142** that is closeable with a removable cover **144** (FIGS. **14-16**.) Compartment **142** houses input devices **146**, such as buttons or any other suitable input device, that can be used to program electronic control device **140** in order to, for example, change input codes to unlock trigger blocking device **82**, change or add authorized users, or other electronic control functions. In one embodiment, fasteners **148** that assemble components of grip **54** and enclose actuating device **86** and securing device **88** are housed in and accessible in compartment **142**. Fasteners **148** are only accessible when cover **144** is removed, and cover **144** is arranged with security device **88** so that cover **144** can only be removed if key **122** is inserted to unlock security device **88**.

Various aspects of the disclosed trigger blocking system are contemplated. According to one aspect, a trigger blocking device is coupled to a removable guard portion of a trigger guard. The trigger blocking device is movable along the removable guard position between a blocking position for blocking rearward movement of a trigger housed in the trigger guard and an unblocked position allowing rearward movement of the trigger in the trigger guard.

According to another aspect, a firearm includes a lower receiver and a grip assembly that includes a firing mechanism and a trigger guard. The firing mechanism includes a hammer moveable between a cocked and uncocked position, a sear assembly coupled to the hammer, and a trigger coupled to the sear assembly with the trigger positioned in the trigger guard. The trigger guard includes a removable guard portion along a lower side of the trigger. The firearm also includes a trigger blocking device coupled to the removable guard portion of the trigger guard. The trigger blocking device is movable along the removable guard position between a blocking position for blocking rearward movement of the trigger and an unblocked position allowing rearward movement of the trigger in the trigger guard.

Various embodiments and refinements of these aspects of the trigger blocking system are also contemplated. For example, in one embodiment the trigger blocking device includes a blocking portion movable along the removable guard portion and an extension portion extending from the guard portion and into a grip of the firearm. In a refinement of this embodiment, the removable guard portion includes a notch that receives the blocking portion. In a further refinement, the blocking portion includes an elongated slot extending therethrough and the removable guard portion includes a pair of ears on opposite sides of the notch, and a pin extends between the ears through the elongated slot that slidably captures the trigger blocking device in the notch. In yet a further refinement, the extension portion of the trigger blocking device includes a plurality of teeth therealong for engagement with an actuating device. In a further refinement, the trigger blocking device is normally biased forwardly toward the blocking position.

According to another embodiment, an actuating device is engaged to the trigger blocking device, and the actuating device is operable to move the trigger blocking device between the blocking position and the unblocked position. In a refinement of this embodiment, a security device is coupled to the actuating device, and the security device is movable between a locked position in which the trigger blocking device is locked in the blocking position and an unlocked position in which the trigger blocking device is movable from the blocking position to the unblocked position. In a further refinement, an electronic control device is connected to the actuating device and the security device. In another refinement, the security device includes an input device to enable operation of the actuating device. The input device can be a keypad or sensor. In another refinement, the security device includes a lock cylinder that is operable by a key inserted into the lock cylinder to move the security device between the locked and unlocked positions.

In another embodiment, the trigger blocking device is supported on the removable guard portion and contacts a lower end of the trigger in the blocking position. In a refinement of this embodiment, the removable guard portion defines a groove along a portion of a length thereof and the trigger blocking device resides in the groove. In another refinement, the trigger blocking device includes an elongated body with a rounded nose that contacts a rearward side of the lower end of the trigger.

In another embodiment, the trigger blocking device includes a blocking portion movable along the removable guard portion and an extension portion extending from the guard portion and into the grip assembly. In a refinement of this embodiment, the removable guard portion includes a notch that receives the blocking portion of the trigger blocking device, the notch forming a groove along the removable guard portion, and the blocking portion resides in the groove. In a further refinement, the blocking portion of the trigger blocking device includes an elongated slot extending therethrough and the removable guard portion includes a pair of ears on opposite sides of the notch, and a pin extends between the ears through the elongated slot to slidably capture the trigger blocking device in the groove.

While the invention has been illustrated and described in detail in the drawings and foregoing description, the same is to be considered as illustrative and not restrictive in character, it being understood that only certain exemplary embodiments have been shown and described. Those skilled in the art will appreciate that many modifications are possible in the example embodiments without materially departing from this invention. Accordingly, all such modifications

are intended to be included within the scope of this disclosure as defined in the following claims.

In reading the claims, it is intended that when words such as "a," "an," "at least one," or "at least one portion" are used there is no intention to limit the claim to only one item unless specifically stated to the contrary in the claim. When the language "at least a portion" and/or "a portion" is used the item can include a portion and/or the entire item unless specifically stated to the contrary.

What is claimed is:

1. An apparatus, comprising:

a trigger blocking device coupled to a removable guard portion of a trigger guard, wherein the trigger blocking device includes a pin extending through an elongated blocking portion thereof for guiding movement of the trigger blocking device along the removable guard portion and includes a blocking position in which a leading end nose of the trigger blocking device is in contact with a bottom end of a trigger housed in the trigger guard for blocking rearward movement of the trigger and an unblocked position allowing rearward movement of the trigger in the trigger guard, wherein the elongated blocking portion extends from the leading end nose along the removable guard portion and the trigger blocking device further includes an extension portion extending rearwardly from the blocking portion into a grip of a firearm, the extension portion being engaged with an actuating device that is configured to secure the trigger blocking device in the blocking position and to allow the trigger blocking device to reciprocate along the removable guard portion in the unblocked position.

2. The apparatus of claim **1**, further comprising a security device coupled to the actuating device, wherein the security device is movable between a locked position in which the trigger blocking device is locked in the blocking position and an unlocked position in which the trigger blocking device is movable from the blocking position to the unblocked position.

3. The apparatus of claim **2**, further comprising an electronic control device connected to the actuating device and the security device.

4. The apparatus of claim **3**, wherein the security device includes an input device to enable operation of the actuating device.

5. The apparatus of claim **4**, wherein the input device is a keypad.

6. The apparatus of claim **4**, wherein the input device is a sensor.

7. The apparatus of claim **2**, wherein the security device includes a lock cylinder that is operable by a key inserted into the lock cylinder to move the security device between the locked and unlocked positions.

8. The apparatus of claim **1**, wherein the trigger blocking device is supported on the removable guard portion.

9. The apparatus of claim **8**, wherein the removable guard portion defines a groove along a portion of a length thereof and the trigger blocking device resides in the groove.

10. A firearm, comprising:

a lower receiver and a grip assembly that includes a firing mechanism and a trigger guard, the firing mechanism including a hammer moveable between a cocked and uncooked position, a sear assembly coupled to the hammer, and a trigger coupled to the sear assembly with the trigger positioned in the trigger guard, wherein the trigger guard includes a removable guard portion along a lower side of the trigger; and

a trigger blocking device coupled to the removable guard portion of the trigger guard, wherein the trigger blocking device includes a pin extending through an elongated blocking portion thereof for guiding movement of the trigger blocking device along the removable guard portion and includes a blocking position in which a leading end nose of the trigger locking device is in contact with a bottom end of the trigger housed in the trigger guard for blocking rearward, movement of the trigger and an unblocked position allowing rearward movement of the trigger in the trigger guard, wherein the elongated blocking portion extends from the leading end nose along the removable guard portion and the trigger blocking device further includes an extension portion extending rearwardly from the blocking portion into a grip of a firearm, the extension portion being engaged with an actuating device that is configured to secure the trigger blocking device in the blocking position and to allow the trigger blocking device to reciprocate along the removable guard portion in the unblocked position.

11. The firearm of claim **10**, wherein the removable guard portion includes a notch that receives the blocking portion of the trigger blocking device, the notch forming a groove along the removable guard portion, and the blocking portion resides in the groove.

12. The firearm of claim **10**, further comprising a security device coupled to the actuating device, wherein the security device is movable between a locked position in which the trigger blocking device is locked in the blocking position and an unlocked position in which the trigger blocking device is movable from the blocking position to the unblocked position.

13. The firearm of claim **12**, further comprising an electronic control device connected to the actuating device and the security device.

14. The firearm of claim **13**, wherein the security device includes an input device to enable operation of the actuating device.

15. The firearm of claim **14**, wherein the input device is a keypad.

16. The firearm of claim **14**, wherein the input device is a sensor.

17. The firearm of claim **12**, wherein the security device includes a lock cylinder that is operable by a key inserted into the lock cylinder to move the security device between the locked and unlocked positions.

18. The firearm of claim **10**, wherein the trigger blocking device is supported on the removable guard portion.

19. The firearm of claim **18**, wherein the removable guard portion defines a groove along a portion of a length thereof and the trigger blocking device resides in the groove.

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